

TO ALL WHOM IT MAY CONCERN

SPECIFICATION

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BE IT KNOWN THAT WE, Yasuko Yokobori, a citizen of Japan residing at Kawasaki, Japan and Yumiko Tanaka, a citizen of Japan residing at Kawasaki, Japan have invented certain new and useful improvements in

NETWORK COMMUNITY SUPPORTING METHOD AND SYSTEM

of which the following is a specification : -

NETWORK COMMUNITY SUPPORTING METHOD AND SYSTEM

1. Field of the Invention

The present invention relates to a network community supporting method and system, and, in particular, a network community supporting method and system suitable for extracting real intention such as characteristics, lifestyles, subconscious needs and so forth of a user class (class of users) of products/services.

2. Description of the Related Art

In order to provide better products/services, questionnaire research, group interview and so forth have been performed thereon, in the related art.

Further, recently, electronic mail system and network community (employing electronic meeting room) are used for collecting comments of the user class on specific products and so forth.

However, through questionnaire research, group interview and so forth, characteristics of users such as lifestyles thereof, subconscious needs thereof are not likely drawn out.

For example, even when questionnaire is performed in which various ideas are applied for subjects, items, and/or way of answering of the questionnaires, and so forth, the questionnaire in which a number of letters is limited for giving each inquiry has a limit by itself. Accordingly, an intention of each inquiry is not clearly understood by a respondent, or, the respondent answers merely for items of inquiry which are given. Accordingly, it is very difficult to probe into real intention of

the users.

Furthermore, even when a interviewer is selected strictly, and, also, inquiry items are improved, because respondents are human beings, the respondents may go along easily with the interviewer, or make inaccurate answers as being tempted by gifts which will be given to the respondents after that. Although such respondents are not a majority, it is not possible to draw real intention of users, consequently.

Further, when an electronic bulletin board, an electronic meeting room or the like is used for collecting comments of users on specific products and so forth, a relationship between the person who collects the comments and respondents is of one-way communication, and merely formal inquiries should be sent. Accordingly, it is not possible to deepen understanding therebetween and to collect opinions of the users after that. In fact, it is difficult to make inquiry to the respondents again in view of manpower, time, and, as forth. Also, it may be difficult to make an appointment with the respondents again. Furthermore, it is difficult to collect the same respondents again and again.

Further, through collection of comments/messages using questionnaire system, electronic mails, or the like through the Internet, it is not possible to obtain subconscious needs which the respondents themselves cannot know. Thereby, it is difficult to expect the characteristics of users such as lifestyles, subconscious needs thereof.

When electronic mail system is used, and, communication is made personally, and continuously, so as to deepen the contents communicated, the following problems may occur:

- ① The amount for which a staff in charge

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As the opinion exchange between users becomes complicated, many staffs are needed for

5 Further, even effective opinions are
given/exchanged, there is no method of extracting
characteristics of users such as lifestyles thereof,
subconscious needs thereof and so forth therefrom
established, yet. Accordingly, it is not possible
10 to extract effective ideas.

The present invention has been devised in consideration of the above-mentioned problems, and, an object of the present invention is to provide a network community supporting method and system by which, by effectively utilizing such characteristics of a network community that it is possible to make communication between users bi-directionally, and information can be held by all the participants in common, it is possible to draw out voluntary messages of members, by utilizing themes which are used as common guidelines of the members, and, also, these messages are analyzed on comparison with the themes, thereby, message analysis results/theme analysis results being able to be obtained.

30 a message database (for example, a message
database 41, shown in FIG. 1) storing contents of a
series of messages given by participants (persons
using terminals 20₁ through 20_n shown in FIG. 1, for
example) of a network community together with a
35 title part including at least message numbers,
messaging dates/times, speaker identifies thereof;
 a part (for example, a community

supporting function part 34 in FIG. 1) analyzing characteristics of the messages concerning themes thereof based on at least one of the theme database and the above-mentioned title part and contents of the message database, and making the theme database latest.

Thereby, it is possible to provide the system and method by which characteristics of users (user class) such as lifestyles thereof, subconscious needs of users (user class) and so forth can be drawn out from the message database storing the messages of the user class.

The series of messages stored in the message database are information held in common between members. Accordingly, it is possible to hold communication between the members. Then, by this mutual stimulus, further messages of the members can be drawn out.

Further, the message database is information held in common between management staffs. Accordingly, the staffs can recognize what messages were drawn out from the members by the respective staffs mutually.

In comparison to use of an electronic mail system, it is possible to reduce the number of staffs needed for operating/managing the above-mentioned system and dealing with a large number of members. Accordingly, it is easy to secure the number and quality of management staffs.

By providing the theme classifying part and renewing/updating part, it is possible to make the information determined by the organizer of the community match the interest of the participants of the community. Accordingly, it is possible to achieve the following objects:

a) By publicizing the themes, it is possible to make participants previously know a type

of the community. Accordingly, it is possible to avoid useless messages;

b) It is possible to continuously deepen the contents, in comparison to use of an
5 questionnaire system;

c) By mutual stimulation, it is possible to deepen the contents in comparison to use of an electronic mail system;

d) The management staffs can utilize the
10 themes as guidelines for promoting the activity; and

e) By declaring the themes according to the interest of the members, it is possible to prevent merely complaints against the products/services, fighting between the members,
15 nonsense chattering, and so forth from occurring.

The network community supporting system may further comprise:

a message analysis database (for example, the message analysis database 32₄, shown in FIG. 2),
20 produced based on the message database, used for analyzing the messages; and

a message grouping part (for example, a grouping part 30₁, shown in FIG. 1) appropriately grouping the messages stored in the message database,
25 based on relationship among the messages.

The network community supporting method may further comprises the step of appropriately grouping the messages stored in the message database, based on relationship among the messages.

30 Thereby, by appropriately grouping the messages stored in the message database, based on relationship among the messages, it is possible to understand the flow of the discussion, and it is possible to easily perform appropriate
35 division/correction of the titles of the messages.

The network community supporting system may further comprise:

part of the theme database. Thereby, it is possible to find out relationship therebetween, and to simply grasp the themes on discussion in relation to the themes stored in the theme database. The themes
5 stored in the theme database are those to be used for drawing the real intention such as characteristics, lifestyles, subconscious needs of the user class on the products/services, and the organizer of the community can easily determine
10 whether or not the community is operated according to the intention of the organizer.

By combining the grouping part and keyword part, it is possible to classify the themes by group units, and to improve the precision in
15 classification.

It is possible to classify the themes by using not a large amount of data such as the contents of messages, but a small amount of data such as titles of messages. Accordingly, it is
20 possible to save work needed for classification.

The network community supporting system may further comprise a theme renewing part (for example, a theme renewing part 30₄, shown in FIG. 1) making the theme latest based on a message analysis
25 interim output (for example, see FIG. 10), output based on the titles of the messages stored in the message database and the theme part or keyword part of the theme database.

The network community supporting method
30 may further comprise a step making the themes latest, based on a message analysis interim output, output based on the themes or keywords concerning the theme.

Thereby, by making the themes latest, based on the message analysis results, output based
35 on the themes or the keywords concerning the themes both stored in the theme database, the themes are made latest, and then, discussion is made/messages

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are given, based on the latest/optimum themes.
Accordingly, the themes are made latest flexibly.

Thereby, the themes along the interest of the participants, and, as a result, themes oriented toward the users are obtained. Accordingly, it is possible to cause the themes of the user class and the request of the organizer to match one another.

It is possible that the latest themes stored in the theme database are those on which the participants currently have the interest, and information itself which the organizer (providing the community) wishes to obtain.

The network community supporting system or method may further comprise or using:

15 a message analysis rule database (for
example, a community analysis rule database 32,
shown in FIG. 2) used for contriving guidelines for
managing the community from the message analysis
database; and

20 a community analyzing part (for example,
305, in FIG. 1) referring to the message analysis
rule database, and outputting analysis results
having instructions concerning management of the
community added thereto.

25 Thereby, by referring to the community
analysis rule database, grasping the situation of
the activity of the community, and obtaining
instructions concerning management of the community,
it is possible to further promote the activity of
30 the community effectively, and further draw messages
of the participants.

The network community supporting system or method may further comprise or using:

a theme analysis rule database (for
35 example, a theme analysis rule database 32₁₀, shown
in FIG. 2) used for analyzing the themes; and

a theme analyzing part referring to the

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| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

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| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

5 accordance with the interest of the class of users
on the products/services. Thereby, it is possible
to obtain the lifestyles, subconscious needs, user
characteristics concerning the products/services.

Further, by generating/updating the message analysis database using the message database, the flow of the messages can be easily grasped.

By making the object of the community provider and the interest of the members to match one another, it is possible to obtain information of the users (user class) along the object.

Further, it is possible to obtain effective messages.

35 By renewing the themes of activity, it is possible to prevent nonsense chattering, fighting among the members, and so forth from occurring.

5 As the message database is held by the members in common, and activity between the members is promoted using the themes as guidelines therefor, it is possible to collect natural comments useful for the theme analysis.

By also using the member database together,
15 it is possible to perform careful/detailed analysis,
and, the results can be used for further drawing
messages and further theme analysis.

20 In fact, by using the message database in
common among the members and staffs, a load borne by
each staff can be considerably reduced. In
comparison to use of an electronic mail system, it
is possible to easily secure required quality of the
25 management.

30 Other objects and further features of the present invention will become more apparent from the following detailed description when read in conjunction with the accompanying drawings.

FIG. 1 shows a concept drawing of a network community supporting system in one

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The system shown in FIG. 1 includes a communication network 10, member terminals 20₁ through 20_n of a user class, a community supporting system 30, a various analysis result 33 in which various analysis results are stored, a community

system 40, community managing staff terminals 50₁
through 50_m, a product/service planning staff
terminal 60₁, a product/service developing staff
terminal 60₂ and so forth. The community supporting
5 system 30, community system 40, community managing
staff terminals 50₁ through 50_m, product/service
planning staff terminal 60₁, product/service
developing staff terminal 60₂ and so forth are shown
in the figure as separate units. However, it is
10 also possible that arbitrary terminals/systems
thereof are combined together. For example, the
community managing staff terminals 50₁ through 50_m
may be included in the community supporting system
30, or the community managing staff terminals 50₁
15 through 50_m may be included in the community system
40. Further, the various analysis result 33 may be
included in the community system 40.

Further, under a condition in which
security is secured, the community supporting system
20 30 may be connected to the communication network
directly.

The community supporting system 30
includes an application providing a system for
drawing messages of a user class (including
25 subconscious users) on products or the like. By
this application, management/operation of a
community mutually connecting the users using an
electronic medium (for example, an electronic
meeting room) is supported. Thus, this application
30 is a measure to extract real intention of the user
class of the products or the like.

For example, the community supporting
system 30 includes a community supporting storage
part 32 and a community supporting function part 34.
35 The community supporting function part 34 includes a
message grouping part 30₁, a message title modifying,
generating and dividing part 30₂,

database and a theme analysis results storage part,
in a separate manner.

Members of the member class previously
register themselves in the community supporting
5 system 30 through the member terminals 20₁ through
20_n, and participate the community system 40
supported by the community supporting system 30, via
the communication network 10 such as Internet.
Information of the registered members is stored in
10 the member database of the community supporting
storage part 32. The members of the user class can
access a message database 41 of the community system
40. However, they cannot access the community
supporting system 30.

15 The community system 40 has the message
database 41, and, provides a field in which the
members can freely gives opinions or proposals. The
community system 40 has the member function 42
enabling the members to give opinions or proposals
20 and the management staff function 43 for staffs who
manage/operate the community system 40.

In the message database 41, titles of
messages given by the members of the user class, and
the contents of the messages are stored in divided
25 title part and content part thereof, respectively.

The community supporting system 30 updates
themes to the latest ones in accordance with the
interest of the members so that the members can give
opinions or proposals, freely, independently.

30 Through the product/service planning staff
terminal 60₁, product/service developing staff
terminal 60₂ or the like, it is possible for staffs
to obtain real intention of the user class on
products or the like, by directly accessing the
35 community system 40 via the communication network 10,
or by accessing the theme analysis result storage
part of the community supporting storage part 32 of

the community supporting system 30 indirectly or directly.

The community management staffs manage the community system 40 by accessing the community system 40 and community supporting system 30 via the community management staff terminals 50₁ through 50_m. The community management staffs are those whom staffs participating the management acting as an organizer as being divided into those who perform planning, those who actually manage the community, those who analyze messages of the member, and so forth, are generically called.

Further, the organizer is an organizer who manages the community according to the present invention as a main part, and, it means the above-mentioned community management staffs or a CPU (not shown in the figure) which is provided in the community supporting system 30.

FIG. 2 shows a summary of a method of supporting the community in the embodiment of the present invention.

FIG. 2 shows processing 1 through 9 concerning management/operation of the community, the community system 40 and community supporting storage part 32 of the community supporting system 30. The community system 40 has the message database 41. The community supporting storage part 32 has the planning document storage part 32₁, design document storage part 32₂, theme database 32₃, message analysis database 32₄, message analysis result storage part 32₅, member database 32₆, community analysis result storage part 32₇, theme analysis result storage part 32₈, community analysis rule database 32₉, and theme analysis rule database 32₁₀.

The processing concerning management of the community includes planning of the community (1),

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concerning the themes are stored. By using this theme database 32₃, the titles of the messages of the members are classified into the corresponding themes. The theme part and keyword part are updated
5 according to change in interest of the members.

Then, the organizer of the community publicizes to the target market, referring to the member database 32₆ (5). Thus, the object and themes are publicized to the user class of the
10 target market. Further, the user class is publicized to the information so as to perform exchange of opinions about the themes positively, freely.

Then, the organizer promotes the activity
15 of the community system 40 by using an electronic medium connecting the users mutually. This community system 40 serves as a field in which the user class of the products/services give opinions/proposals (discuss) about the specific
20 themes, positively, freely.

In order to participate the community system 40, the user class make membership registration. For the registration, the user class gives information of their addresses, names, sexes,
25 ages, hobbies, themes for which they have interest, and so forth.

The information of the members thus registered is stored in the member database 32₆ of the community supporting storage part 32.

30 The organizer of the community promotes the activity along the themes (6). The members voluntarily and positively give messages about the themes of the community. These messages are divided into titles and contents, are, then, stored into the
35 title part A1 and content part A2 of the message database 41, respectively.

Specifically, the activity between the

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Thereby, the messages are followed. Thereby, items which should be followed (follow items) are found out. For example, a case where no response has been

made to an inquiry is found out. In such a case a message may be output automatically.

Then, change in interest of the members is confirmed, and, according to the latest themes, the
5 messages are followed, and further messages are drawn out.

When a request is given by another division in the community management organizer such that user characteristics such as lifestyles,
10 subconscious needs thereof are wished to know, the organizer of the community performs theme analysis based on the latest theme database 32₃ and message analysis database 32₄ (9). At this time, the organizer refers to the theme rule database 32₉, and,
15 as the necessary arises, refers to the theme analysis rule database 32₁₀.

The thus-obtained theme analysis results are stored in the theme analysis result storage part 32₈. The real intention stored in the theme
20 analysis result storage part 32₈ is used through the product/service planning staff terminal 60₁, product/service developing staff terminal 60₂ and so forth.

Design and building of various databases
25 will now be described with reference to FIGS. 3A, 3B and 3C.

The organizer of the community designs/builds the theme database 32₃, member database 32₆ and message database 40.

30 FIG. 3A shows an example in which themes are temporarily set in the theme database 32₃. The theme database 32₃ includes the theme part and keyword part, as mentioned above.

① As the set themes set in the above-
35 mentioned process (3) are used as guidelines, the theme part of the theme database is generated. As shown in the figure, the theme part includes a high

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And Keywords: When a not keyword exists in the title of message, an and keyword exists therein and, also, a main keyword exists therein, the message is classified into the theme ID.

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Publicizing to the target market will now

be described with reference to FIGS. 4A and 4B.

The organizer of the community refers to the theme database 32₃, and advertises the object and themes of the community and publicizes them to the target market so as to cause the user class thereof to participate the community. Publicizing is made internally and externally of the network community 40 (in a step S41).

A person who wishes to participate the community enters necessary matters in a network community entrance application form 42, and applies for the entrance, as shown in FIG. 4A, for example. Entering into the network community entrance application form 42 may be made via the network or made on paper.

When it is made via the network, information of the returned network community entrance application form may be stored in the member database 32₆ as it is, as shown in FIG. 4B, for example (in a step S43)

With reference to FIGS. 5A and 5B, the theme promotion activity will now be described.

The organizer of the community promotes activity along each theme (in a step S51). Specifically, along the theme, activity among the members is promoted, messages are followed, and further messages are drawn from the members.

In the promotion of activity, a staff reads the messages stored in the message database 41, produces messages/comments using the themes of the theme database 32₃ as guidelines, and sends them to the community system 40 (in a step S52).

Further, by the member function 42 of the community system 40, the title part and contents part of the message database 41 are transmitted to the terminal of a member as the request is made by the member, a title is given to each message

transmitted to the network community by the terminal of a member, and is stored in the message database 41 (in a step S53).

For example, as shown in FIG. 5A, message number, speaker ID, messaging date/time, comment destination, title of message and so forth are stored in the title part A1 of the message database 41 (in a step S54). Further, for example, as shown in FIG. 5B, the message number, message contents and so forth are stored in the contents part A2 of the message database 41 (in a step S55).

After the predetermined number of messages are accumulated, the organizer of the community generates and updates the message analysis database and renews the theme database.

With reference FIG. 6, processing thereof will now be described.

The organizer uses the message database 41, and analyzes the messages.

Specifically, the community supporting system 30 performs the following two types of processing:

- The title part A1 and content part A2 of the message database 41 are referred to, and, for example, by using link relationship between the messages, grouping of the titles of the messages is performed. The results thereof are stored in the message analysis database 32₄ (in a step S61).

- The analysis title part (title part for analysis) of the message analysis database and the theme database are referred to, and analysis of themes of the messages is performed. Further, according to change in interest of the members, the themes are made to be the latest ones (renewal). The latest (renewed) themes are used to update the theme database 32₃ (in a step S62).

A part or all of the processing of the

are of a group by them all (group ID: 002).

The grouping is performed as follows:

• A parent message is searched for in ascending order, and, when it is found out, an
5 arrangement is made such as a child thereof, a grand child thereof, ...

• When no child message is then found out, an arrangement is made such as a child of a message of an immediately higher rank, a ground child, ...

10 • When the parent is returned to, a group ID is given, and this grouping is finished.

• The above-mentioned process is repeated until no input remains.

③ The titles of the messages are
15 modified/generated as the necessity arises, and the thus-obtained ones are stored in a to-be-analyzed title part (analysis title part).

For example, as shown in FIG. 7C, as the message, numbered '002' and titled 'Hello' of the
20 member ID: BBB02345 includes two contents, i.e., 'immediately before start of baby food' and 'relationship with milk', this message is divided. As a result, the message numbers thereof are '002' and '002-1', and, further, based on the contents of
25 the messages, the new titles 'immediately before start of baby food' and 'relationship with milk' are produced, and, are stored in the to-be-analyzed title part.

Further, the message of the member ID:
30 EEE05678, numbered '006' and title 'Please teach' is changed in title into 'Menu for girl's festival' according to the contents of the message. Then, this new title is stored in the to-be-analyzed title part.

35 Further, the message of the member ID: FFF06789, numbered '007' and titled 'Hello' is changed into 'menu for girl's festival for baby',

FIG. 7C

which is stored in the to-be-analyzed title part (analysis title part).

④ The comment destination is changed/modified as the necessity arises according to the following logic, and, the thus-obtained one is stored in the to-be-analyzed title part:

i. When a divided message has a child message, the comment destination of the child message is changed according to instructions.

• When instructions for changing the comment destination are given, in accordance therewith, the comment destination is changed into a message number which specifies a comment destination in the to-be-analyzed title part of the message analysis database 32₄.

• When no instructions for changing the comment destination are given, a branch number '-1' is added to the comment destination.

ii. In a case where a divided message is a child message, and, also, it is a parent message of a generation 1 in itself, the comment destination is changed into '000'.

iii. For one which is not divided, or for one which has not a link relationship originally, a link relationship is corrected/generated, when instructions are given.

For example, as shown in FIG. 8A, the comment destination of the message titled 'Hello' of the member ID: DDD04567 and numbered 004 is originally '002'. However, the message number 002 includes two different contents, and, the message 'Hello' of the member ID: DDD04567 numbered 004 thereof is a message for '002-2' divided from the original '002'. Accordingly, the comment destination is changed into '002-2', which is then stored in the to-be-analyzed title part. Similarly, 'Hello' of the member ID: CCC03456, numbered 003 is

modified, and, the modified one is stored in the to-be-analyzed title part.

Further, the contents of the message 'Menu for girl's festival for baby' of the member ID: FFF06789, numbered 007 is a message for 'Menu for girl's festival' numbered 006 of the member ID: EEE05678. Accordingly, the comment destination thereof is modified into '006', which is then stored in the to-be-analyzed title part.

10 All or part of the contents of the message analysis database 32₄ and message database 41 are output in a form such that they can be viewed, appropriately. As the destination device of the output, a screen of a display unit, paper printed
15 out from a printer, a disk of hard disk drive, floppy disk drive, or the like, may be considered.

⑤ The respective messages are further grouped according to the comment link relationship.

For example, as shown in FIG. 8B,
20 according to the modified comment link relationship, grouping is performed again.

(2) According to change in interest of the members, the themes are made to be the latest ones. By the thus-renewed latest themes, the theme
25 database 32₃ is updated (in a step S62).

① The to-be-analyzed (analysis) title part of the message analysis database 32₄ such as that shown in FIG. 9B is compared with the keyword part of the theme database 32₃ such as that shown in
30 FIG. 9A, and, theme IDs meeting requirements are stored in the theme part of the message analysis database 32₄. The result thereof is output in a form such that the result can be confirmed via human eyes (in a step S91).

35 i. Information of 'title of message' is taken for each 'message number' from the message analysis database 32₄, and, 'theme IDs' which meet

the following requirements of the theme database are stored in the column of 'theme ID' of the message analysis database 32₄:

- When any main keyword coincides with any part of the title of message, the theme ID is stored there.
 - When not only a main keyword but also a not keyword exist in the title of message, the theme ID is not stored there.
 - When both an and keyword and a main keyword exist in the title of message, the theme ID is stored there.
 - Higher priority is given to a not keyword than to an and keyword.
 - When there is no coincident keyword included in the title of message, zero is stored there.
- ii. The contents of the result of the analysis of the messages (interim output) are output so as to be visually confirmed via human eyes. The destination device of the output is the display screen, printer, disk or the like.
- For example, the items to be output, and the display method are specified by parameters.
 - When the theme ID is zero, 'others' is set in the level-1, and the title of the parent message is set in the level-2, for example.

FIG. 10 shows an example of the output of the results of the analysis of the messages (interim outputs). The output items are specified by parameters.

In this example, [] indicates the theme in level-1, and < > indicates the theme in level-2. For the respective themes, the titles of the messages classified by these themes are arranged in a hierarchical configuration together with the message numbers so that relationship between parent

and child of the link is understandable therefrom.

② When change of titles and/or modification of destinations is needed, the changed/modified contents are stored in the relevant parts of the to-be-analyzed title part (referred to as 'analysis title part', in the figures) of the message analysis database 32₄, and, according to the thus-changed comment link relationship, grouping is performed again (in a steps S92).

③ The results of the analysis of the messages (interim outputs) are studied, and, when addition/modification of themes is needed, the theme database 32₃ is updated (in a step S93).

The updating of the theme database 32₃ has the following forms:

- A theme (level-1, level-2) is added, and a keyword is set.

- A theme (level-1, level-2) is modified.

For example, an output example of the results of the analysis of the messages (interim outputs) shown in FIG. 10 is studied, and 'event food' is added as a theme in level-1 and, 'girl's festival' is added as a theme in level-2 of the 'event food', as shown in FIG. 11A.

Further, in FIG. 11A, for the theme of 'milk', 'milk' is changed into 'powdered milk' as a theme in level-2 of 'milk', and, also, 'mother's milk' and 'follow-up milk' are added.

- A keyword is modified.

Based on the above-mentioned addition and modification of themes (level-1, level-2), keywords are set for the added/modified themes.

④ The processing of the above-mentioned ① is performed. As the necessity arises, ② is returned to (step S94).

The to-be-analyzed title part of the message analysis database 32₄ is compared with the

keyword part of the modified theme database 32₄, and the theme IDs meeting the requirements are stored in the theme part of the message analysis database 32₄.

⑤ When modification of the theme database 32₃ and message analysis database 32₄ comes to be not necessary in ④, the message analysis results are output.

For example, the final results of the message analysis database 32₄ in the analysis of the messages, as shown in FIG. 11B, are output in a form such as to be able to be confirmed visually via human eyes.

With reference to FIGS. 12A, 12B and 13, further promotion of the activity will now be described.

For example, the community analysis rule database 32₉ is used, and the community analysis results 32₇ (final outputs) shown in FIG. 12C are output.

The community analysis results 32₇ (final outputs) have, according to the rule, a follow-instruction message added thereto. According to the analysis rule, information of the member database 32₆ may be referred to.

As shown in FIG. 12A, the community analysis rule database 32₉ includes conditions and output messages.

For example, a rule 1 thereof is a rule for a case where, when 'a tree of a comment link is terminated by comments by a member at the end', 'isn't it necessary to follow the message?' is output.

According to the rule 1, as shown in FIG. 12C, with regard to 'event food', 'isn't it necessary to follow the message?' is output to the column of follow-instruction message of the community analysis results 32₇ (final output).

5 In the further promotion of the activity,
a staff reads the messages in the message database
41, and, using the community analysis results 32,
(final outputs) shown in FIG. 12C as guideline,
produces messages/comments, similarly to the
0 promotion of the activity shown in FIG. 5, which are
then sent to the community system 40 (in a step
S122).

Similar to the promotion of the activity shown in FIG. 5, the message number, speaker ID, messaging date/time, comment destination, title of message, and so forth are stored in the title part A1 of the message database 41 (in a step 124). Further, the message number, contents of message and so forth are stored in the content part A2 of the message database 41 (in a step 125).

Based on the contents of the message
35 analysis database 324, user characteristics such as
life styles, subconscious needs and so forth of the
user class, needed for activity of the enterprise or

the like are found out (in a step S131).

According to the theme analysis rule database 32₁₀, the theme analysis results 32₈ are output, as shown in FIG. 14B, for example (in a step
5 S132).

FIG. 14A shows an example of the theme analysis rule. In this example, according to this rule, the following matters are determined:

(a) whether output is made in summary or
10 in detail; (b) a range of selecting themes; (c) which matters are emphasized in the output; (d) which items are output in the output in detail; (e) whether the number of themes in level-1 or level-2 is output; (f) whether a theme ID for which the
15 number of message in level-1 or level-2 is more than a predetermined number is output; and so forth.

FIG. 14B shows an example of an output of theme analysis results for added themes in the output in detail.

20 A possible form of the present invention is 'a method in which the user class of products/services gives messages for specific themes, the contents of the series of the messages of the user class are stored together with titles thereof,
25 the themes are updated appropriately based on the titles of the thus-stored messages, the contents of the messages of the user class are analyzed, and, thereby, user characteristics such as lifestyles, subconscious needs and so forth are drawn out
30 therefrom'.

FIG. 15 shows a general-purpose computer to which the present invention can be applied.

The computer shown in FIG. 15 includes a CPU 100 performing processing/operation according to
35 the present invention described above by executing instructions written in a software program, which is originally recorded in a carriable recording medium

such as a CD-ROM 151, is read therefrom through a CD-ROM drive 150, is written into a hard-disk drive 140, then is read by the CPU 100.

5 This computer can communicate with other terminals of the users/members of the network community, via the network such as Internet through an appropriate communication device 160. The organizer/staff of the community can input various information such as the themes, keywords, and so
10 forth to the HDD 140 through an input device 120 such as a mouse, keyboard, and so forth, and draw various information such as real intention of the user class of specific products/services from the HDD 140 through a display device 130 or a printer
15 170. The HDD is used for storing the various databases mentioned above of the present invention.

The present invention is not limited to the above-described embodiment, and variations and modifications may be made without departing from the
20 scope of the present invention.

The present application is based on Japanese priority applications No. 2000-099377, filed on March 31, 2000, the entire contents of which are hereby incorporated by reference.

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2000-099377